

one had been broken by the wind. Forty-six of the protected heads remained. Twenty-seven (only 54 per cent.) had blossomed normally; seventeen were more or less injured by animals. Ants had gained access to two.

Experiments with *Serratula lycopifolia* Vill., gave similar results, so that the usefulness of the ants in both of these cases can hardly be disputed. But both plants are natives of the tropics where ants are most abundant and most wonderfully developed.

There were few ants upon the involucre of *Solidago squarrosa*. Perhaps this very fact accounts for the large number of beetles. But the beetles as well as the numerous other visitors all seemed to suck the nectar without doing injury to the head, and moreover they were observed after all or very nearly all of the flowers were gone, and their visits continued until the coming of cold weather, that is for about two weeks, if my memory is good.

Ludwig says: "In *Jurinea* the involucre scales are reflexed during anthesis forming a protection to the flowers, while the scales of *Serratula* are appressed and accordingly, in *Serratula* the secretion of nectar continues after blossoming." *Solidago* differs from both, for its involucre scales are reflexed, and the secretion is of long continuance. The plants were grown under unnatural conditions, on an exposed hill at the edge of the Horticultural Garden here at Ithaca. It will be necessary to observe them in their own haunts another year to ascertain surely whether ants are their guests and the champions against their foes.—ALICE CARTER, *Ithaca, N. Y.*

EDITORIAL.

A NEW FEATURE for American expositions has been inaugurated by the World's Fair commissioners. It is proposed to hold a series of congresses in connection with the Fair, to which those interested in the various departments of knowledge are to be invited. These are to be conducted in the same generous spirit which characterizes the other projects of the exposition. The preliminary circulars have been issued, and some of the special congresses are already quite well organized.

Plans for the Botanical Congress are now under consideration. What these plans shall be depends largely upon the botanists of the country. It is much to be desired that a full and hearty expression of opinion be made public through the botanical and other journals, to

serve as a guide for the committee in charge. As it is necessary to push the arrangements as rapidly as possible, those who have words of suggestion or encouragement to offer should not delay to make them known.

The plan, so far as it has been outlined at present, is to invite the botanists of the world to meet at Chicago, sometime during August, 1893, to discuss such matters of interest as may be arranged for beforehand or be brought up at the time, and to enjoy the benefits of personal acquaintance. During the meeting a few stated lectures will be given by distinguished botanists, designed more especially for the general public. Excursions and other means of promoting good fellowship and a profitable time are among the possibilities.

It is hoped to secure for the gathering a truly international character, which will make it not only a notable and pleasant occasion, but give its deliberations a weight and sanction of authority that will do much toward settling disputed questions and advancing the science.

IN THE September number of *Grevillea* the editor makes the most startling comments on the availability of German mycological works. He says, referring to Brefeld's *Untersuchungen aus dem gesammten Gebiete der Mykologie*, "Mycologists are very limited in number in these islands, and some of these are unable to purchase indiscriminately . . . whilst the number capable of perusing German with ease is considerably less. All those capable of reading and appreciating Dr. Brefeld's works for instance, could be counted on the fingers of one hand!" That, if true, is a lamentable condition. But we hope the statement is too strong.

CURRENT LITERATURE.

Minor Notices.

THE ANNUAL report of 1890 of the state botanist of New York,¹ Chas. H. Peck, contains a list of the plants added to the herbarium during the year (261 species); among which are thirty-six new species of fungi. These are described, and figured on the four plates. There is also a revision of the genus *Tricholoma* which is represented in the

¹ PECK, CHARLES H.—Annual report of the state botanist of the state of New York, made to the regents of the University. From the 44th report of the N. Y. state museum of Natural History. 8vo. pp. 75. pl. 4. Albany: Lyon, state printer, 1891.